

LISTING OF THE CLAIMS:

1. (Currently Amended): A method in a data processing system for managing traffic in a network data processing system, the method comprising:

monitoring the traffic for a plurality of network paths; and
responsive to a packet for a particular network path within the plurality of network paths causing the traffic for the particular network path to exceed a level of traffic allowed, reducing an amount of bandwidth available to the particular network path using an action based on a ~~fair share for~~ protocol used by the particular network path.

2. (Currently Amended): The method of claim 1, wherein the traffic is ~~measured~~ monitored using at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

3. (Currently Amended): The method of claim 1, wherein the ~~reducing-step~~ action comprises:

reducing a congestion window size by multiplying the amount of bandwidth available by a dynamic variable that is adjusted using changing requirements of the particular network path to reduce the amount of bandwidth available based on a fair share for the particular network path.

4. (Currently Amended): The method of claim 3, wherein the congestion window size is reduced as follows:

$$CW = \max(\text{MinW}, \min(CW * F, \text{MaxW}))$$

wherein CW is the congestion window size, MinW is a minimum congestion window size for the particular network path, MaxW is a maximum congestion window size for the particular network path, and F is a fraction the dynamic variable used to ~~adjust~~ adjust the congestion window size for the particular network path.

5. (Currently Amended): The method of claim 1, wherein the ~~reducing step~~ action comprises:
setting a [[type]] quality of service for packets sent using the particular network path.
6. (Currently Amended): The method of claim 1, wherein the ~~reducing step~~ action comprises:
dropping the packet.
7. (Currently Amended): A method in a data processing system for managing traffic in a network data processing system, the method comprising:
monitoring aggregate traffic for each of a plurality of network paths; and
responsive to the aggregate traffic for a selected network path exceeding a threshold, reducing the aggregate traffic for the selected network path using an action based on a protocol used by the selected network path.
8. (Currently Amended): The method of claim 7, wherein the aggregate traffic ~~includes~~ comprises at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.
9. (Currently Amended): The method of claim 7, wherein the ~~reducing step~~ action comprises:
reducing a congestion window size by multiplying an amount of aggregate traffic by a dynamic variable that is adjusted using changing requirements of the selected network path to reduce the aggregate traffic for the selected network path.
10. (Currently Amended): The method of claim 7, wherein the ~~reducing step~~ action comprises:
reducing a sending size for data packets.

11. (Currently Amended): The method of claim 7, wherein the ~~reducing-step~~ action comprises:
- changing a ~~[[type]]~~ quality of server service for data packets for the selected network path.
12. (Original): The method of claim 7, wherein the threshold takes into account a fair share of bandwidth available for the plurality of network paths.
13. (Currently Amended): A data processing system comprising:
- a bus system;
- a communications unit connected to the bus, wherein data is sent and received using the communications unit;
- a memory connected to the bus system, wherein a set of instructions are located in the memory; and
- a processor unit connected to the bus system, wherein the processor unit executes the set of instructions to monitor traffic for a plurality of network paths; and reduce an amount of bandwidth available to a particular network path using an action based on a ~~fair share for~~ protocol used by the particular network path in response to a packet for ~~[[a]]~~ the particular network path within the plurality of network paths causing the traffic for the particular network path to exceed a level of traffic allowed.
14. (Currently Amended): The data processing system of claim 13, wherein the bus system ~~includes~~ comprises a primary bus and a secondary bus.
15. (Currently Amended): The data processing system of claim 13, wherein the processor unit ~~includes~~ comprises a single processor.
16. (Currently Amended): The data processing system of claim 13, wherein the processor unit ~~includes~~ comprises a plurality of processors.

17. (Original): The data processing system claim 13, wherein the communications unit is an Ethernet adapter.
18. (Currently Amended): A data processing system comprising:
a bus system;
a communications unit connected to the bus, wherein data is sent and received using the communications unit;
a memory connected to the bus system, wherein a set of instructions are located in the memory; and
a processor unit connected to the bus system, wherein the processor unit executes the set of instructions to monitor aggregate traffic for each of a plurality of network paths; and reduce the aggregate traffic for ~~[[the]]~~ a selected network path using an action based on a protocol used by the selected network path in response to the aggregate traffic for ~~[[a]]~~ the selected network path exceeding a threshold.
19. (Currently Amended): The data processing system of claim 18, wherein the bus system ~~includes~~ comprises a primary bus and a secondary bus.
20. (Currently Amended): The data processing system of claim 18, wherein the processor unit ~~includes~~ comprises a single processor.
21. (Currently Amended): The data processing system of claim 18, wherein the processor unit ~~includes~~ comprises a plurality of processors.
22. (Original): The data processing system claim 18, wherein the communications unit is an Ethernet adapter.
23. (Currently Amended): A data processing system for managing traffic in a network data processing system, the data processing system comprising:
~~monitoring~~ means for monitoring the traffic for a plurality of network paths; and

~~reducing~~ means for reducing, responsive to a packet for a particular network path within the plurality of network paths causing the traffic for the particular network path to exceed a level of traffic allowed, ~~for reducing~~ an amount of bandwidth available to the particular network path using an action based on a ~~fair share for~~ protocol used by the particular network path.

24. (Currently Amended): The data processing system of claim 23, wherein the traffic is ~~measured~~ monitored using at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

25. (Currently Amended): The data processing system of claim 23, wherein the ~~reducing step~~ action comprises:

reducing a congestion window size by multiplying the amount of bandwidth available by a dynamic variable that is adjusted using changing requirements of the particular network path to reduce the amount of bandwidth available based on a fair share for the particular network path.

26. (Currently Amended): The data processing system of claim 25, wherein the congestion window size is reduced as follows:

$$CW = \max(\text{MinW}, \min(CW * F, \text{MaxW}))$$

wherein CW is the congestion window size, MinW is a minimum congestion window size for the particular network path, MaxW is a maximum congestion window size for the particular network path, and F is a fraction the dynamic variable used to [[cut]] adjust the particular network path.

27. (Currently Amended): The data processing system of claim 23, wherein the ~~reducing means~~ action comprises:

~~setting means~~ for setting a [[type]] quality of service for packets sent using the particular network path.

28. (Currently Amended): The data processing system of claim 23, wherein the ~~reducing means~~ action comprises:

~~dropping~~ means for dropping the packet.

29. (Currently Amended): A data processing system for managing traffic in a network data processing system, the data processing system comprising:

~~monitoring~~ means for monitoring aggregate traffic for each of a plurality of network paths; and

~~reducing~~ means for reducing, responsive to the aggregate traffic for a selected network path exceeding a threshold, ~~for reducing~~ the aggregate traffic for the selected network path using an action based on a protocol used by the selected network path.

30. (Currently Amended): The data processing system of claim 29, wherein the aggregate traffic ~~includes~~ comprises at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

31. (Currently Amended): The data processing system of claim 29, wherein the ~~reducing step~~ action comprises:

reducing a congestion window size by multiplying an amount of aggregate traffic by a dynamic variable that is adjusted using changing requirements of the selected network path to reduce the aggregate traffic for the selected network path.

32. (Currently Amended): The data processing system of claim 29, wherein the ~~reducing means~~ action comprises:

means for reducing a sending size for data packets.

33. (Currently Amended): The data processing system of claim 29, wherein the ~~reducing means~~ action comprises changing a [[type]] quality of server service for data packets for the selected network path.

34. (Original): The data processing system of claim 29, wherein the threshold takes into account a fair share of bandwidth available for the plurality of network paths.

35. (Currently Amended): A computer program product ~~in a computer readable medium~~ for managing traffic in a network data processing system, the computer program product comprising:

a computer readable medium having computer usable program code embodied therein, the computer readable medium comprising:

first instructions for monitoring computer usable program code configured to monitor the traffic for a plurality of network paths;

~~second instructions, responsive a packet for a particular network path within the plurality of network paths causing traffic for the particular network path to exceed a level of traffic allowed, for reducing~~ computer usable program code configured to reduce an amount of bandwidth available to a particular network path using an action based on a fair share for protocol used by the particular network path in response to a packet for the particular network path within the plurality of network paths causing the traffic for the particular network path to exceed a level of traffic allowed.

36. (Currently Amended): The computer program product ~~[[of]]~~ as recited in claim 35, wherein the traffic is ~~measured~~ monitored using at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

37. (Currently Amended): The computer program product ~~[[of]]~~ as recited in claim 35, wherein the ~~reducing step~~ action comprises:

reducing a congestion window size by multiplying an amount of bandwidth available by a dynamic variable that is adjusted using changing requirements of the particular network path to reduce the amount of bandwidth available based on a fair share for the particular network path.

38. (Currently Amended): The computer program product ~~[[of]]~~ as recited in claim 37, wherein the congestion window size is reduced as follows:

$$CW = \max(\text{MinW}, \min(CW * F, \text{MaxW}))$$

wherein CW is the congestion window size, MinW is a minimum congestion window size for the particular network path, MaxW is a maximum congestion window size for the particular network path, ~~and F is a fraction~~ the dynamic variable used to ~~[[cut]]~~ adjust the particular network path.

39. (Currently Amended): The computer program product ~~[[of]]~~ as recited in claim 35, wherein the ~~second instructions~~ action comprises:

~~instructions for~~ setting a ~~[[type]]~~ quality of service for packets sent using the particular network path.

40. (Currently Amended): The computer program product ~~[[of]]~~ as recited in claim 35, wherein the ~~second instructions~~ action comprises:

~~instructions for~~ dropping the packet.

41. (Currently Amended): A computer program product ~~in a computer readable medium~~ for managing traffic in a network data processing system, the computer program product comprising:

a computer readable medium having computer usable program code embodied therein, the computer readable medium comprising:

first instructions for monitoring computer usable program code configured to monitor aggregate traffic for each of a plurality of network paths; and

second instructions, responsive to aggregate traffic for a selected network path exceeding a threshold, for reducing computer readable program code configured to reduce the aggregate traffic for ~~[[the]]~~ a selected network path using an action based on a protocol used by the selected network path in response to the aggregate traffic for the selected network path exceeding a threshold.

42. (Currently Amended): The computer program product ~~[[of]]~~ as recited in claim 41, wherein the aggregate traffic ~~includes~~ comprises at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

43. (Currently Amended): The computer program product ~~[[of]]~~ as recited in claim 41, wherein the ~~reducing-step~~ action comprises:

reducing a congestion window size by multiplying an amount of aggregate traffic by a dynamic variable that is adjusted using changing requirements of the selected network path to reduce the aggregate traffic for the selected network path.

44. (Currently Amended): The computer program product of claim 41, wherein the ~~second instructions~~ action comprises:

~~instructions for~~ reducing a sending size for data packets.

45. (Currently Amended): The computer program product of claim 41, wherein the ~~second instructions~~ action comprises:

~~instructions for~~ changing a ~~[[type]]~~ quality of server service for data packets for the selected network path.

46. (Original): The computer program product of claim 41, wherein the threshold takes into account a fair share of bandwidth available for the plurality of network paths.